

What is claimed is:

1 1. A double control apparatus, capable of saving power, comprising:
2 a first power supply unit for converting an externally input alternating current (AC) power
3 into a direct current (DC) power, and providing the DC power as a first power;
4 a function performing unit, which is driven in response to a second power, for performing
5 one or more predetermined functions;
6 an external interface unit, which is driven in response to the first power and the second
7 power, for receiving control information from the outside and outputting input state information to
8 the outside;
9 an auxiliary control unit, which is driven in response to the first power, for receiving the
10 control information from the external interface unit, outputting the state information to the external
11 interface unit, and outputting a power control signal in response to a sleep mode signal;
12 a main control unit, which is driven in response to the second power, for generating the state
13 information, which is obtained by executing a program for controlling the function performing unit,
14 for output to the auxiliary control unit in response to the control information input from the auxiliary
15 control unit, and generating the sleep mode signal in response to the result of checking whether or
16 not a predetermined time period has elapsed after the function performing unit finishes performing
17 the predetermined function;
18 and
19 a second power supply unit for outputting the first power as the second power in response
20 to the power control signal.

1 2. The double control apparatus of claim 1, wherein the auxiliary control unit generates
2 the power control signal in response to whether or not control information is input from the external
3 interface unit.

1 3. The double control apparatus of claim 2, wherein the external interface unit comprises
2 a ring detection unit, which is driven in response to the first power, for detecting a ring signal
3 received through a public switched telephone network, and outputting the detected ring signal as the
4 control information.

1 4. The double control apparatus of claim 2, wherein the external interface unit comprises
2 a key input unit, which is driven in response to the first power and has a plurality of keys, and
3 outputs the result of user's manipulation of keys as the control information.

1 5. The double control apparatus of claim 2, wherein the external interface unit comprises
2 a liquid crystal display (LCD), which is driven in response to the second power, and displays the
3 state information to the user.

1 6. The double control apparatus of claim 1, further comprising:
2 a motor which is driven in response to the second power and operates under control of the
3 main control unit, wherein the predetermined function includes a printing function.

1 7. The double control apparatus of claim 6, wherein the predetermined functions further
2 includes a facsimile function.

1 8. The double control apparatus of claim 7, wherein the predetermined functions further
2 includes a scanning function.

1 9. The double control apparatus of claim 8, wherein the predetermined functions further
2 includes a copying function.

1 10. A power control method performed by a double control apparatus, the method
2 comprising the steps of:

3 generating a first power by converting an alternating current (AC) power into a direct current
4 (DC) power;

5 operating an auxiliary control unit by the generated first power;

6 generating a second power;

7 operating a function performing unit and a main control unit by the generated second power;

8 continuously determining whether or not a predetermined time period elapses after a
9 predetermined function is performed by the function performing unit;

10 generating a sleep mode signal when it is determined the predetermined time period has
11 elapsed;

12 transmitting the sleep mode signal as state information from the main control unit to the
13 auxiliary control unit;

14 generating a power cut off signal in response to the state information indicative of the sleep
15 mode signal;

16 cutting off the generation of the second power in response to the power cut off signal; and

17 entering a sleep mode when the generation of the second power is cut off.

1 11. The power control method of claim 10, the method further comprising the steps of:
2 determining whether or not the first power is continuously generated during said sleep mode;
3 continuously determining, during said sleep mode, whether or not control information is
4 input from an external interface unit, which is driven in response to the first power, when it is
5 determined that the first power is continuously generated; and
6 returning the step of generating the second power when it is determined that the control
7 information is input from the external interface unit.

1 12. The power control method of claim 11, the step of continuously determining, during
2 said sleep mode, whether or not control information is input from an external interface unit further
3 comprises:
4 monitoring a ring detection unit for input of a ring signal from a telephone network;
5 monitoring a key input unit for activation, by a user, of keys of said key input unit; and
6 generating said control information when said ring detection unit receives the ring signal or
7 when said keys of said key input unit are activated.